Section of Ophthalmology.

President—W. T. Holmes Spicer, F.R.C.S.

Discussion on Mr. Rayner D. Batten's paper, "The Need of Ophthalmic Physicians for the Advancement of Ophthalmology.[1]

Dr. C. O. Hawthorne: As the Section has heard what a surgeon has to say, it may be convenient that a physician should now intervene. And let me say, in the first place, I am quite sure that all those members who were present at the November meeting will agree that we had then an opportunity of listening to a paper which was as interesting as it was unconventional, and even those who do not allow Mr. Rayner Batten's conclusions will recognize with me the skill and sincerity of his argument. The occasion presented two other features which, I think, are noteworthy. One of these was provided by the element of surprise or novelty, and the other by the element of courage. It is an unusual thing—in my experience an unprecedented thing—to see a representative of the craft of surgery voluntarily clothing himself in sackcloth, putting ashes on his head, and beating his breast while exclaiming in pathetic accents, "Woe is me, for I am a very much overrated man!" And it is equally unusual to hear, from the surgical quarter, and addressed to the physicians, the plaintive Macedonian appeal, "Come over and help us." I am sure the physicians will appreciate the compliment which is paid to them by Mr. Batten, and they will, so far as possible, give to his paper and to his arguments a most attentive hearing. The element of courage perhaps appeals to me particularly from certain experiences of my own. It happens that, on more than one occasion, I have ventured to say that a considerable part of the field of clinical ophthalmology requires, not the art and craft of the surgeon but the diagnostic and therapeutic methods of the physician; and I have been soundly rated for my pains. I once advanced this proposition at a congress of ophthalmic surgeons assembled at that home of lost causes, the University of Oxford, and in the subsequent discussion I was, metaphorically, torn limb from limb. And still later, I have been publicly rebuked for presumption in a lecture published in a medical journal by an eminent ophthalmic surgeon who occupies a high place in the hierarchy of this Section of Ophthalmology. If these things

[1] At a meeting of the Section, held December 3, 1919.

may happen to a physician, who by the majority of the members of this Section is probably regarded as without the pale, what fate is likely to be reserved for an ophthalmic surgeon who, making similar proposals, is sure to hear from his colleagues the cry "Our foes are they of our own household." It was for these reasons that, when I saw the title of Mr. Batten's paper, though I had not the advantage of knowing him personally, I felt convinced he was a man endowed with an unusual measure of moral courage. And his paper, in my judgment, fully justified this anticipation. With the general spirit and motive of the paper I am in substantial agreement, though I am afraid I cannot say the same of the specific names and titles which Mr. Batten proposes to attach to the officers whom he hopes to call into existence. The true position in this matter may be efficiently illustrated by a remark which is attributed to Mr. Gladstone, who, when he was told that certain members of his party were calling themselves Gladstonian Liberals, replied, "Well, I at least am not one of them." The moral, of course, is that the physician is content with the liberal and catholic title which a long tradition has bestowed upon him, and he does not propose either to allow this title to be limited or qualified in one direction, or to be tricked out with artificial decorations in the other. It is true that there are members of the profession who call themselves, or allow themselves to be called, such names as neurologists, cardiologists, enterologists, endocrinologists, and the rest. But such a proceeding, in my judgment, is neither dignified nor scientific, for the relation of the physician is not to localized disturbances, as these occur in a certain limited and selected portion of the body, but to all the disorders and discomforts of the whole and undivided individual patient. For my own part, therefore, I should object to be called an ophthalmic physician for the same reason that I should object to being styled a non-ophthalmic physician. The one term is a redundancy while the other borders on the grotesque.

Coming now to the essential substance of Mr. Batten's paper, this may, I take it, be described as a critical review of the work of the ophthalmic hospital. Mr. Batten, who is in a position to speak with authority on such a question, has weighed this work in the balance, has in certain respects found it wanting, and he now proposes certain measures with a view to improve and to redress the situation. I say again that, in principle, I am entirely of his opinion. Whether a co-operation of the physician with the surgeon in the investigation of such quasi-surgical problems as the cause and prevention of conical cornea, of detachment of the retina, of cataract, and so on, would be fruitful or not, I cannot pretend to say. But at least it is worth trying; and until the whole body has been thoroughly and repeatedly examined it is anything but scientific to say that the origin of this or that local disturbance cannot be detected. While I speak with hesitation upon such problems as Mr. Batten has proposed for the joint investigation of physician and surgeon, I do not speak with uncertainty about some other conditions which are constantly to be met with at ophthalmic hospitals, and which, though regarded by the patient as having a purely local significance in reference to some defect of sight, are essentially

evidences of nervous disease, of cardio-vascular disease, of kidney disease, or of diseases of the blood, that is, these conditions are symptoms of diseases with which the physician, not the surgeon, is constantly occupied. My reference to symptoms includes ocular paralyses, disturbances of the pupil, cycloplegias, optic neuritis, optic atrophy, retinitis, retinal and other intra-ocular hæmorrhages, and disturbances in any form of the field of vision. I say that each one of these symptoms creates an immediate claim for a complete investigation of the patient, that is a demand for the application to this particular individual of the method and practice of the physician. It is a mere accident, due to the natural prominence which ocular or visual symptoms occupy in the consciousness of the patient, that he first seeks aid at the ophthalmic hospital. The true clinical position of such a patient is not determined by the local disturbance in the visual apparatus but by the essential nature of the disease which underlies it. Therefore, quite clearly, such patients fall without the limits of ophthalmic surgery, and this all the more emphatically so, seeing that neither the visual nor the general condition is capable of remedy by mechanical or surgical means. It comes, therefore, to this: that if you are to receive, examine and treat patients of this order at ophthalmic hospitals, it is necessary that the hospitals have towards them some definite policy. If such diseases as I have mentioned are to be treated at an ophthalmic hospital, the hospital obviously must have an appropriately qualified medical staff, nurses in suitable supply and properly trained, the equipment and apparatus needed for medical investigation, and beds for patients who require to be kept under continuous observation and care.

This is what I conceive Mr. Batten is asking for, and I cannot see how his position can possibly be challenged. The question is one which concerns the good repute of the profession, the progress of scientific medicine, and the welfare of the individual patient. The position seems to me a particularly clear and distinct one, and I do not see how it can be adequately and scientifically met except by the adoption of the principle which Mr. Batten has expressed in his paper. There is only one alternative, namely, that patients suffering from nervous, cardiovascular, renal and blood diseases shall not be retained in institutions which profess the practice of ophthalmic surgery, but shall be directed to the medical department of a general hospital.

Mr. CHARLES HIGGENS: Two things struck me about Mr. Batten's paper. He said no word about refraction. After forty years of practice I feel that if it had not been for refraction work I should have had nothing to do. The second point is, that he has left the general practitioner out of consideration. If the general practitioner sends us a case for an opinion we investigate it and tell him what ought to be done, and, if it is necessary for the patient to consult a different specialist, we indicate who he should be, whether for brain or any other disease. And in hospital work, we turn the cases over to the appropriate physician. We do not pretend to know all these things in an expert way, and we send patients to the proper men.

Mr. ERNEST CLARKE: London is the only place in the world where oculists are supposed to be surgeons only, and are styled "Mr." In any other specialty in London—gynæcology, laryngology, dermatology, &c.—the specialist may be either physician, surgeon, or both. How did this custom arise? It is surely not far to seek. Only sixty or seventy years ago, eye work was entirely surgical—there was no ophthalmoscope, practically no refraction work, and the only eye work doing was surgical, and at all our London hospitals one of the surgeons had charge of the ophthalmic department. A little later specialists were appointed, but it is only quite recently that one of the larger hospitals—viz., the London Hospital—started having a special ophthalmic surgeon! I need only refer to such names as Hutchinson, Waren Tay, Eve, Cooper, Hulke, George Lawson, and Silcock, all of them general surgeons practising ophthalmic surgery. The young men aiming at becoming oculists naturally imitated them; they saw it was the custom for *surgeons* to be appointed, and that the possession of the Fellowship of the Royal College of Surgeons was a *sine quâ non*. This meant that the student had to put forth all his energies to pass this difficult examination, and medicine was put on the shelf. Some of us have had the priceless experience of spending some years in general practice, and some have taken the Doctorate of Medicine, and that has enabled us to get out of the narrow groove. I applaud Mr. Batten for having brought forward this subject, and the discussion is most important, but I do not agree with his remedy. I think the remedy is, that the ophthalmic student of the future should be invited, nay urged, to learn more medicine. As Mr. Higgens has said, we do not want to treat cases of general disease, but we do want to be able to diagnose them so that we can transfer them to the physician. I do not understand Dr. Hawthorne's attitude, for he has been a most useful physician to my hospital for many years, and we have always referred our medical cases to him for treatment. The remedy is to get a little more broad-minded in our views, to get away from too much surgery, because nowadays nine-tenths of ophthalmic work is medical, including practically all refraction work. Mr. Batten said only 2 per cent. of the work is surgical. I think it is a little more than that, but certainly the major part of ophthalmic work is medical. We must urge upon students in the future to study medicine more, and to take positions as house-physicians as well as house-surgeons, and I think in this way we shall achieve the remedy.

Mr. E. TREACHER COLLINS: The picture which Mr. Batten has drawn for us of the present position of ophthalmology is not, I think, a very pleasing one or one quite true to nature: I think that in places he has got his colours rather mixed, and in others he has deepened the shadows unduly for the sake of effect. If we want to understand the position we are in at present and realize that to which we are tending in the future we require to consider how we got where we are now. The commencement of British ophthalmology practically dates back to the establishment of Moorfields Hospital in 1804, and Mr. Batten may be interested to hear that when it was originally established the

staff consisted of a physician and a surgeon. Dr. Farr was appointed physician, and for fifty-four years he held that post. I have heard Sir Jonathan Hutchinson relate that when he first began to visit Moorfields Hospital Dr. Farr attended and saw cases just as surgeons now see cases. How some patients were allotted to the physician and some to the surgeon, I do not know: probably, in the matter of treatment, the physician superintended the sweating and purging, and the surgeon looked after the bleeding and blistering! At any rate, blood flowed freely at Moorfields in those early days. As time advanced, the surgical side at Moorfields seemed to progress more rapidly than the medical side, for we find that the surgeons increased in number quickly, and the physicians gradually ceased any regular attendance at the hospital. In those days all the surgeons at Moorfields were also general surgeons: they practised ophthalmic surgery as a branch of general surgery. When I first went to Moorfields, half the staff was composed of general surgeons who practised ophthalmic surgery, and half who were ophthalmic specialists. After the introduction of antiseptics, the range of surgery so greatly increased that general surgeons ceased to devote themselves to ophthalmic surgery. After the invention of the ophthalmoscope and the establishment of the correct methods of estimating refractive errors, the realms of ophthalmology were greatly increased, and a new type of man evolved, the ophthalmologist. For him the ophthalmoscope opened up the study of many diseases which had formerly come within the range of the physician. Those who hold posts of ophthalmic surgeons to general hospitals know what a large part of their time is spent in the medical wards helping the pure physician, who has not troubled to learn the use of the ophthalmoscope in the diagnosis of his cases.

This question which we are debating is largely one of names. It reminds me of the story of a man who was a member of the Royal College of Surgeons and a licentiate of the Royal College of Physicians. One of his lady patients said to him: "I never know which to call you, 'Mr.' or 'Doctor,'" and he replied: "It does not matter which you call me, so long as you call me in." So also it does not matter what we are called so long as we are called in whenever a disease of the eye is to be dealt with. In the eighteenth century, the profession was divided into physicians, surgeons and apothecaries. Hospital staffs are still nominally divided into physicians and surgeons, yet we find that such a division hopelessly breaks down. We see on hospital staffs men who are called obstetric physicians who do as many operations as the general surgeons. And in some hospitals in London we find men in charge of nose and throat departments who are called physicians, and in others men who are called surgeons both doing precisely the same kind of work. As knowledge advances, so it tends to be split up into several different departments. In medicine we have departments of ophthalmology, gynæcology, dermatology, rhinology, &c. The men who confine their practice to those departments are regarded as experts in them. But there are border lines to all departments, border lines which are liable to be overlooked by the experts; so

it is an advantage to have men who take up two branches, and form a *liaison* between the two, becoming experts in both. They do a lot of useful work, but such men often do not find all the favour they deserve among those who are experts in only one branch. It is related of Sir John Lubbock that when he was in the City he was looked upon as a great politician and a great man of science; when he was in the House of Commons he was regarded as a great financier and a great scientist; but when he was at the Royal Society he was regarded as a great politician and a great financier. Though I do not agree with all of Mr. Batten's paper, I agree with its title, so far as it goes—"that physicians are necessary for the further advance of ophthalmology"—but I do not think it goes far enough. There is also need for ophthalmic rhinologists, for ophthalmic physiologists, for ophthalmic pathologists, and for ophthalmic mathematicians. All these and other workers on the boundary line of ophthalmology are equally as important as the ophthalmic physician. But what is most needed for the further advancement of ophthalmology is the complete ophthalmologist. By the complete ophthalmologist I mean the man who is greedy to know everything which can be known about any disease in which the eye is affected: and not only that, but eager to practise and carry out any form of treatment which is likely to preserve or restore vision.

Mr. A. W. ORMOND: It appears to me that at the present time one of Mr. Batten's propositions has not received attention, and that is, the qualification which is necessary for the position, in London, of ophthalmic specialist. For a man to hold a post at Moorfields and various other eye hospitals, it is necessary for a man to have a surgical qualification, and that qualification is the Fellowship of the College of Surgeons. I think the contention of Mr. Batten may be put in this way: that the London M.D. is as good a qualification as is the London M.S. for an ophthalmic specialist to possess, and I think that point is one which should not be lost sight of. I take it Mr. Batten is as anxious to push forward the advancement of ophthalmology as Mr. Collins, and he believes we should remove the disability from those who possess the medical qualification only. There is another point in Mr. Batten's paper which I am not clear about. He advocates that there should be on the staff of the London ophthalmic hospitals an ophthalmic physician who shall do no operations at all, and an ophthalmic surgeon who should do all the operations. That would, it seems to me, be a pity, because it would be making a specialty within a specialty, thus further limiting that specialism which has many dangers already. To my mind, the great need at the present time is that the specialist should have a wider, not a narrower view. With regard to Dr. Hawthorne's contention, and his humorous references to want of knowledge of medicine, his remarks remind me of the cases which have been sent to physicians for their help, but help has not been forthcoming. It is not that we doubt physicians know so much more about medicine than we do, but so often, when we are at a loss for information, we gain none from the medical side. I am sure the need at the present time is not so much for an alteration of our

organization as for obtaining, as far as possible, a much greater number of men who have far more time to study the medical side of ophthalmology than is possible at present, when most of our junior men are absolutely inundated with refraction work.

Mr. LEIGHTON DAVIES: One of the glories of our specialty is, that it requires such a wide breadth of view. We are both physicians and surgeons, although we may be called surgeons. I do not think it is right to tack on to ophthalmic surgeons the opprobrium that they are incompetent to investigate any branch of scientific work connected with the eye: I fail to see why the ophthalmic surgeon should not be as well able to investigate disease as is the physician. I regard it as a retrograde step to try to divide this specialty into two: it would greatly confuse the issues which lie before it. That brings me to another point in the paper—the training of ophthalmic physicians and surgeons. At present it is a great drawback to all of us in that when we first come into the ophthalmic world we have to learn our work after we become qualified. There is some advantage in that, however, for it is a great mistake for a man to make up his mind at 21 years of age that he is going to be an ophthalmic surgeon and devote himself to it from that time for the rest of his career. It tends to make him narrow-minded. I am really speaking against the granting of diplomas in ophthalmology. The training for this diploma would teach a man all he requires to know about ophthalmology, but it teaches him nothing else about either medicine or surgery. I think the universities should grant their highest degrees, either medical or surgical, in ophthalmology, such as, I am glad to see, the University of London is doing now, because it ensures that the man who is taking his M.D. or M.S. in ophthalmology has had a thorough grounding for his career. Therefore I think the solution is largely in the universities making ophthalmology a special subject for higher degrees. The University of Wales has not yet granted this degree, but I think it will come up for discussion next year.

Mr. HERBERT PARSONS: It is difficult not to agree with a great deal that everybody has said. The chief value of Mr. Batten's paper consists in the stress which he has laid on the feeling many ophthalmologists must have that they are not fully qualified to deal with the medical aspects of their subject in the same degree as the surgical. But I think he might have gone very much further. I think the ophthalmologist ought not only to be able to deal exhaustively with the medical aspect, but with other aspects, such as optics, and physiological optics, and the industrial relationships of ophthalmology; in fact, to deal with ophthalmology from every point of view. I have had the misfortune—it may be—to be much mixed up with various industrial and other aspects of the subject: the fixing of standards for different classes of people, such as soldiers and sailors, the inspection of factories from the lighting point of view, and so forth. And all I can say is, that one feels, as Mr. Balfour said, "like a child in these things," for one feels that the problems are very complex, and very unfamiliar in many of their bearings. The importance to

be attached to one's contribution to the discussion of any of these topics depends upon a comprehensive and thorough grasp of the subject. And that brings one round to Mr. Collins's position, which is the nucleus of the whole matter—namely, that we are essentially ophthalmologists, neither specially physicians nor specially surgeons. Therefore the ideal of the ophthalmologist is to make himself *au fait*, as far as possible, with ophthalmology in all its branches. It must be admitted that it is not possible for any of us to reach the highest ideal: some are more suited for surgery and others for medicine, but I think that that sort of thing rights itself as in other walks of life. We should at any rate strive to reach the ideal in regard to our own branch of the profession. The importance of the paper is that it puts the finger on the weak spots, and the lesson of it is to see how we can improve the conditions. I think this reduces itself to the question of the education of the ophthalmologist. What we need in London is a first-class school of ophthalmology: I think that will be the solution of most of our difficulties. And to attain to that better position we shall have to study all the branches of our subject to the fullest degree, and the opportunities for such study must be increased: they are faulty in many directions at the present time. The optician who makes spectacles knows more about optics than we do. But it is not right that it should be so. What the optician knows about it is easily learned. Where we are lacking is, that we content ourselves with getting these things up purely theoretically without handling them practically and seeing exactly how they are done. And the same applies to physiological optics. For instance, at the present time I am on a cinema committee, and one of the important factors there is the question of recurrent images. It is a physiological question which most ophthalmologists do not spend much time in trying to grasp. The only way is deliberately to attack such subjects. At present we have to study them under grave disadvantages. I do not think there is any place in London where a man can get a thorough course of physiological optics, unless it be at the Psychological Laboratory, University College; but we want courses catering specially for the training of ophthalmologists. Associated with the education question is the qualification of ophthalmologists. The Council of British Ophthalmologists have done their best to point out the way in which ophthalmic qualifications may be improved, and, as published in the last number of the *British Journal of Ophthalmology*, they have come to the conclusion that special diplomas in ophthalmology are not altogether satisfactory, but that the qualification should be made part of a general medical qualifying examination of the higher order, such as the M.S. London. Perhaps that does not reach the ideal, but so long as ophthalmic hospitals require surgeons specially that diploma will be primarily a surgical qualification. And if we can get the higher surgical qualifications to include ophthalmologists, so much the better. Probably we can improve matters still more later.

But what I do object to in Mr. Batten's paper are his conclusions. It would be a lamentable thing to split up ophthalmology into two specialties.

All advance in knowledge has been the result of specialization. Every thought we have is a form of specialization, attention itself is a form of specialization; but it must not be forgotten that specialism is responsible for great evils. Specialism has been the ruling tendency of the last century, and the result is that advance in knowledge has been greatest in those sciences which are easiest to grasp. Physical sciences do not appear to be easiest to us, because we are more of a biological turn of mind, but the exactitude of the mathematical and physical sciences renders them easier to certain types of mind. Hence the advance in physical science has been greater than in biological science, and still more than in the higher aspects of mental and moral science. One result has been the engendering of materialism, which has been a prime factor in the causation of the war. Specialism has led to many of the difficulties which have arisen during the war—difficulties of Government departments—and the muddles which have been made have not been because there were not men trained to the different jobs, but because the different men have not been properly co-ordinated. What we want above all now is integration and co-ordination, as opposed to differentiation and increased specialism. We have, therefore, to guard against further dichotomy in ophthalmology, such as the reader of the paper advocates.

Dr. COBBLEDICK: I think Mr. Batten's paper is a move in the right direction, but he should be prepared to go further. He wishes to divide ophthalmic staffs into surgeons and physicians but I think there should also be elected a special refractionist. The question then arises, who is going to apportion the cases to these different sections? This is work that will have to be fairly, accurately and rapidly carried out. The best scheme is undoubtedly a thoroughgoing team work which proved to be such a success in the Army during the war and was practised in some parts of America before 1914. Under this system the ophthalmic surgeon must sink his preconceived ideas, every section of the body must be examined and reported on, and these reports must receive the considered judgment of the ophthalmic surgeon. I am inclined to sympathize with the suggested ophthalmic physician, for how can he report on the condition, e.g., of the post-nasal space or the vesiculæ seminales. The only type of medical man who could report—from practical experience—on the various parts of the body is the general practitioner: he is in the habit of examining the rectum, throat, vagina, chest; has a wide knowledge of children's diseases, but unfortunately his knowledge of eye work is very limited. In this connexion it is interesting to note that the Medical Research Committee, at the instigation of such men as Sir James Mackenzie and Sir Clifford Allbutt, has enlisted the services of medical practitioners to investigate on the early symptoms and diagnosis of disease. All this tends to show there is a movement to obtain in all medical circles a greater general knowledge. I have also noted that the remarks of previous speakers that the F.R.C.S.Eng. which we have all so much worshipped is tottering on its pedestal; it should be conjoined and should work with the M.D., then will the maximum benefit accrue to ophthalmology.

Mr. RAYNER BATTEN (in reply): A point which has not been touched on in the discussion is what I have called the "dilution" of the operating surgeons. With the large number of men necessary to do the ophthalmic work of the country, it is impossible for all to be sufficiently trained to operate. It is lamentable that eyes should be so badly operated on as they must be when a man has only an occasional operation to do. He cannot do an *occasional* operation successfully. The physician need not operate. I do not want to introduce any specialism between physicians and surgeons. Both are ophthalmologists. Both should undertake refractions. But there should be a recognized position in the hospital for the man who does not operate, and yet is qualified in every other respect to be an ophthalmologist. I agree that education is the key to the position, and that is the real point of my paper. But, in the meantime, the opening of ophthalmic hospital appointments to physicians would be a step in the right direction. My desire is merely to insist that men who are not competent to operate should not operate, and that medical work should be in the hands of competent physicians.

Case of Keratitis following Gunpowder Explosion.

By GEORGE POTTS, F.R.C.S.Ed.

T. B., AGED 14½. On September 5, 1919, he met with an accident from the explosion of gunpowder and the same evening was brought to hospital.

On examination it was found that his face was literally covered with charred powder and was scorched about the lips, nose, cheeks, eyebrows and lids. The whole of the palpebral fissures were full of half-exploded gunpowder. It was impossible to distinguish any conjunctiva or cornea. The lids and eyes were absolutely covered by a dense layer of semi-exploded gunpowder which was adherent to the conjunctivæ and corneal epithelium, the left being more severe than the right.

His eyes were cocainized and the powder removed from the corneæ, conjunctivæ, lids and portion of the face. It was found to have burnt and penetrated the superficial layers of the cornea and Bowman's membrane on the left side, and on the right side the corneal epithelium and Bowman's membrane only. There was very little clear cornea on either side remaining and iritis had already commenced. Both eyes were well bathed with boracic lotion and atropine drops instilled, also ung. iodof. and cocaine applied.

He has continued to improve steadily from the first.

Present condition: Right eye—There is a very slight nebula of the